

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Electrical installations for lighting and beaconing of aerodromes – Maintenance of aeronautical ground lighting constant current series circuits**

**Installations électriques pour l'éclairage et le balisage des aérodromes – Maintenance des circuits série à courant constant pour le balisage aéronautique au sol**



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## CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references .....	6
3 Terms and definitions .....	6
4 Competence of persons.....	9
4.1 Objective.....	9
4.2 Requirements.....	9
5 Management of maintenance activities .....	9
5.1 Objective.....	9
5.2 Requirements.....	9
5.2.1 Organizational roles and responsibilities.....	9
5.2.2 Use of contractors .....	10
5.2.3 Maintenance policy.....	10
5.2.4 Maintenance procedures .....	11
5.2.5 Admittance to AGL work areas .....	11
6 Safety requirements .....	12
6.1 Objective.....	12
6.2 Requirements.....	12
6.2.1 Safety procedures .....	12
6.2.2 Live working .....	13
6.2.3 Safety checks.....	13
6.2.4 Tools and test equipment .....	14
6.2.5 Safety equipment.....	14
6.2.6 Personal protective equipment.....	14
7 AGL maintenance procedures.....	14
7.1 Objective.....	14
7.2 Requirements.....	14
7.2.1 General .....	14
7.2.2 Pre-work procedures .....	14
7.2.3 AGL constant current series circuits .....	15
7.2.4 Cables.....	15
7.2.5 Completion of work.....	16
7.2.6 Records and documentation .....	16
Annex A (informative) Maintenance organisation model .....	17
Bibliography.....	27
Figure A.1 – AGL maintenance organisation structural diagram .....	18
Figure A.2 – AGL constant current series circuit maintenance model .....	24
Figure A.3 – Example of a permit-to-work/sanction-to-test sheet.....	25
Figure A.4 – Example of a permit-to-work/sanction-to-test sheet.....	26

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL INSTALLATIONS FOR LIGHTING  
AND BEACONING OF AERODROMES –  
MAINTENANCE OF AERONAUTICAL GROUND LIGHTING  
CONSTANT CURRENT SERIES CIRCUITS**

## FOREWORD

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International Standard IEC 61821 has been prepared by IEC technical committee 97: Electrical installations for lighting and beaconing of aerodromes.

This second edition cancels and replaces the first edition published in 2002. It is a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) addition of references to normative references;
- b) addition of notes in Clauses 5, 6 and 7;
- c) modification of pre-work procedures in item e) of 7.2.2.

The text of this standard is based on the following documents:

FDIS	Report on voting
97/153/FDIS	97/154/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## INTRODUCTION

This International Standard contains the management, safety and procedural requirements specific to the maintenance of an aeronautical ground lighting (AGL) constant current series circuit and has taken into consideration existing national standards, requirements and practices. The maintenance activities are required to ensure that the AGL constant current series circuit continues to meet the operational requirements and minimize the occurrence of operational failures.

To conform to this International Standard it should be demonstrated to the relevant bodies that the requirements have been satisfied and therefore that the clause objective(s) has (have) been met.

NOTE Examples of relevant bodies would include the following:

- certification and licensing authorities;
- safety regulators;
- notified bodies for international or European directives;
- national standards bodies.

# ELECTRICAL INSTALLATIONS FOR LIGHTING AND BEACONING OF AERODROMES – MAINTENANCE OF AERONAUTICAL GROUND LIGHTING CONSTANT CURRENT SERIES CIRCUITS

## 1 Scope

This International Standard applies to the maintenance of AGL constant current series circuits.

This International Standard

- covers constant current series circuits for AGL installed at aerodromes and heliports;
- concentrates on providing the safety requirements for the maintenance of an AGL constant current series circuit. It is recognized that AGL constant current series circuits of different design characteristics and parameters are in existence;
- is mainly concerned with safety to persons by specifying the rules and fundamental principles for the maintenance of AGL constant current series circuits;
- is not intended to apply to AGL primary series circuits supplied directly from a mains constant voltage source;
- is not intended to be used for public street lighting, roadway lighting or any other installation requiring the use of constant current series circuits.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60903, *Live working – Gloves of insulating material*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **aerodrome authority**

organization accountable for the operational safety and security of persons, aircraft operations and facilities at an aerodrome

NOTE Temporally the occupational safety for third party personal, contracted for AGL work on non-operational areas, can be delegated to the third party contractor if the evidence of professional skills, knowledge of the behavior rules and the separation to the airport operation area is given and documented.

### 3.2

#### **AGL constant current series circuit**

apparatus configured as an electrical circuit designed to produce and operate with a constant current, independent of specified load variations, in order to provide a specified light for aeronautical purposes

### 3.3

#### **AGL operator**

person responsible for the control of the AGL to permit the safe movement of aircraft